HEALTH SERVICES AND DEVELOPMENT AGENCY
JUNE 27, 2018
APPLICATION SUMMARY

NAME OF PROJECT:	Chattanooga-Hamilton County Hospital Authority d/b/a Erlanger Medical Center-Provider Based (Satellite) Emergency Department
PROJECT NUMBER:	CN1802-011
ADDRESS:	Unaddressed site at the southeast quadrant of Exit 20 northbound on US Interstate 75 Cleveland (Bradley County), TN 37353
LEGAL OWNER:	Chattanooga-Hamilton County Hospital Authority dba Erlanger Health System 975 East 3rd Street Chattanooga, TN 37403
OPERATING ENTITY:	N/A
CONTACT PERSON:	Joseph Winick (423) 778-8088
DATE FILED:	February 14, 2018
PROJECT COST:	$11,297,935.00
FINANCING:	Cash Reserves
PURPOSE FOR FILING:	Establishment of a Satellite Emergency Facility with 16 Treatment Rooms and Initiation of Cardiac Catheterization Services

DESCRIPTION:

Chattanooga-Hamilton County Hospital Authority d/b/a Erlanger Medical Center seeks approval for the establishment of a satellite emergency department (FSED) and initiation of cardiac catheterization services. The 12,383 square foot facility will be constructed on an undeveloped 2.9 acre unaddressed site located at the southeast quadrant of exit 20 northbound on US interstate 75, Cleveland

(Bradley County) TN. The FSED portion will contain 9,883 SF with 16 treatment rooms while the portion dedicated to the catheterization lab portion will total 2,500 SF. The facility will be approximately 27.2 miles (33 minutes) northwest from Erlanger's main campus and 16.9 miles (17 minutes) from Erlanger East, both of which are located in Hamilton County. The applicant will be referred to as "Erlanger Bradley County" for the remainder of this summary.

Note to Agency Members: While the applicant refers to a Level IV trauma center designation throughout the application, the Tennessee Department of Health (TDH) report includes information noting FSEDs will not be granted trauma center designation (see last page of TDH report).

Cleveland Tennessee Hospital Company, LLC d/b/a Tennova Healthcare Cleveland also filed a FSED application, CN1803-015, which will be heard simultaneously with Erlanger Bradley County at the June 27, 2018 Agency meeting. The Tennova application proposes to establish an 11,000 SF satellite emergency department facility with 8 treatment rooms on an undeveloped 2.44 acre site located at 680 Stuart Road NE, Cleveland (Bradley County) TN. The Tennova FSED site is approximately 2.8 miles northeast from its main campus near interstate 75 Exit 27 along the Highway 11 corridor. The estimated project cost is $12,081,195.

The distance between the Erlanger FSED site and Tennova' s main campus and FSED is 6.5 miles and approximately 9.3 miles, respectively.

SERVICE SPECIFIC CRITERIA AND STANDARD REVIEW

FREESTANDING EMERGENCY DEPARTMENTS

Standards and Criteria

1. Determination of Need in the Proposed Service Area

The applicant must demonstrate need for an emergency department in **at least one** of the following ways: *geographic isolation, capacity challenges, and/or low quality of care at existing emergency department (ED) facilities in the proposed service area*. Applicants are not required to address and provide data for all three categories. However, the applicant's ability to demonstrate need in multiple categories may strengthen the application.

A. Geographic Isolation

The applicant is demonstrating geographic isolation for the proposed service area. If this box is checked the applicant must provide the information below.

The proposed Erlanger FSED is 6.5 miles from Tennova Healthcare-Cleveland (Bradley County). The applicant notes geographic isolation for Bradley and Polk Counties is demonstrated by the closure of a Level III trauma center at former SkyRidge Medical Center in Bradley County when the hospital was acquired by Tennova in 2015 and the closure of Copper Basin Hospital in Polk County. Patients in the proposed service area must be transported to Erlanger Medical Center in Hamilton County for trauma care.

Information was provided to demonstrate need in the three categories in addition to other applicable data related to need and capacity.

B. Capacity Challenges: Wait Times and Visits Per Treatment Room

1. Wait Times

The applicant should utilize Centers for Medicare and Medicaid Services (CMS) throughput measures, available from the CMS Hospital Compare website, to illustrate the wait times at existing emergency facilities in the proposed service area.

Wait Times at Existing ED Facilities in the Proposed Service Area

ED-1: Median Time from ED Arrival to ED Departure for ED Admitted Patients			
Emergency Department	**ED Time/Score**	**Tennessee Average**	**National Average**
ED 1-Tennova Cleveland	401 Minutes	251 Minutes	282 minutes

- *The applicant indicated Tennova Cleveland reported an ED Time/Score of 401 minutes, 150 minutes above the Tennessee average and 119 minutes above the national average.*

ED-2: Median Time from Admit Decision to Departure for ED Admitted Patients			
Emergency Department	**ED Time/Score**	**Tennessee Average**	**National Average**
ED 1-Tennova Cleveland	206 Minutes	81 minutes	102 Minutes

- *The applicant indicated Tennova Cleveland reported a median time to admit decision to departure for ED admitted patients score 206 minutes, 125 minutes above the Tennessee average and 104 minutes above the national average.*

OP-18: Median Time from ED Arrival to ED Departure for Discharged ED Patients			
Emergency Department	ED Time/Score	Tennessee Average	National Average

ED 1- Tennova Cleveland	207 Minutes	132 Minutes	138 Minutes

- *The applicant indicated Tennova Cleveland reported a median time from ED arrival to ED departure for discharged ED admitted patients score of 207 minutes, 75 minutes above the Tennessee average and 69 minutes above the national average.*

OP-20: Door to Diagnostic Evaluation by a Qualified Medical Professional			
Emergency Department	ED Time/Score	Tennessee Average	National Average
ED 1- Tennova Cleveland	19 Minutes	17 Minutes	20 Minutes

- *The applicant indicated Tennova Cleveland reported door to diagnostic evaluation by a qualified medical professional score of 19 minutes, 2 minutes above the Tennessee average and 1 minute below the national average.*

OP-22: ED Patient Left Without Being Seen			
Emergency Department	ED Time/Score	Tennessee Average	National Average
ED 1- Tennova Cleveland	5%	2%	2%

Source: CN1802-011

- *The applicant indicated Tennova Cleveland reported the percentage of ED patients that left without being seen in 2016 was 5%, 3 percentage points higher the Tennessee and national average.*

2. Visits Per Treatment Room

The following chart identifies the visits per treatment room at all emergency departments in the service area and compares them to the ACEP guideline ranges for low range and high range emergency departments.

Visits Per Treatment Room in Existing ED Facilities in the Proposed Service Area
2016

Emergency Department	Year(s)	Total Visits	# of Rooms	# of Visits/Room	ACEP-Low to High Range	ACEP Low Range	ACEP High Range
Tennova Cleveland	2014	49,791	42	1,186	1,613-1,250	1,250	1,613
	2015	50,533	42	1,203	1,613-1,250	1,250	1613
	2016	48,501	42	1,155	1,613-1,250	1,250	1613

Source: CN1802-011

- *Tennova Cleveland is the only ED facility in the proposed service area. The applicant reports Tennova Cleveland had 42 treatment rooms in 2016 averaging 1,155 visits per room that fell below the ACEP low range of 1,250.*

C. Low Quality of Care at Existing Emergency Departments in the Service Area

The applicant is demonstrating low quality of emergency care in the proposed service area.

The applicant indicates Tennova Healthcare-Cleveland has longer treatment times for most metrics as compared with other EDs in Tennessee and nationally. The applicant provided quartile data for the State of Tennessee on page 25 of supplemental #1 as a comparison to the data presented below.

Quality of Care Provided at Existing ED Facilities in the Proposed Service Area

Measure	Emergency Department	Year(s)	ED Time	Check (X) Applicable Quartile			
				Below 1st Quartile	Between 1st Quartile and Median	Between Median and 3rd Quartile	Above 3rd Quartile
OP-1: Median Time to Fibrinolysis	**Tennova Healthcare**	**2016**	*				
OP-2: Fibrinolytic Therapy Received Within 30 Minutes	**Tennova Healthcare**	**2016**	*				
OP-4: Aspirin at Arrival	**Tennova Healthcare**	**2016**	**100 min.**				✓
OP-5: Median Time to ECG	**Tennova Healthcare**	**2016**	**4 min**		✓		
OP-18: Median Time from ED Arrival to Departure for Discharged ED Patients	**Tennova Healthcare**	**2016**	**207 min**				✓
OP-20: Door to Diagnostic Evaluation by a Qualified Medical Personnel	**Tennova Healthcare**	**2016**	**19 min**		✓		
OP-21: ED-Median Time to Pain Management for Long Bone Fracture	**Tennova Healthcare**	**2016**	**94 min**				✓

OP-23: ED-Head CT or MRI Scan Results for Acute Ischemic Stroke or Hemorrhagic Stroke Patients who Received Head CT or MRI Scan Interpretation With 45 Minutes of ED Arrival	**Tennova Healthcare**	**2016**	**88 min**			✓	

Source: CN1802-011

Indicator not available

The applicant reported on 6 measures used in Hospital Compare that relate to quality of care. One measure (OP-23) was between the median and 3rd quartile, two measures (OP-5 and OP-20) were between the 1st quartile and median, and 3 measures (OP-4, OP-18, and OP-21) were above the 3rd quartile.

Data Source:

Centers for Medicare and Medicaid Services (CMS)

D. Other Applicable Data Related to Need and Capacity

The applicant is providing additional data related to need and capacity.

The applicant may provide data relevant to patient acuity levels, age of patients, percentage of behavioral health patients, and existence of specialty modules at existing EDs in the proposed service area to demonstrate capacity challenges.

Additional Data to Demonstrate Need in the Proposed Service Area

Emergency Department	% of *Behavioral Health Patients	Statewide Average	% of Patients Level I or II	Statewide Average	% of Patients Ages 65+	Statewide Average
Tennova Healthcare-Cleveland	**3.6%**	**3.3%**	**7.7%**	**8.8%**	**19.0%**	**17.6%**

Data Source:

Hospital Discharge Data System (HDDS)

The applicant reported the following data:

- *Tennova Healthcare-Cleveland Emergency Department's 2016 percentage of behavioral health patients was 3.6% as compared to the statewide average of 3.3%.*

- *Tennova Healthcare-Cleveland Emergency Department's 2016 percentage of Level I (resuscitation) and Level II (emergency) patients was 7.7% as compared to the statewide average of 8.8%.*

- *Tennova Healthcare-Cleveland Emergency Department's 2016 percentage of patients age 65+ was 19.0% as compared to the statewide average of 17.6%.*

Note to Agency members: The applicant used the Emergency Severity Index Level of Care system to address the criteria in this question, while Tennova used CPT evaluation and management (E & M) billing codes, with Level 4 and 5 codes indicating patients with more complex, resource-intensive conditions. Using two different measures to address this question from the two applicants explains the slight discrepancies in their responses.

2. Expansion of Existing Emergency Department Facility

Applicants seeking expansion of the existing host hospital ED through the establishment of a FSED in order to decompress patient volumes should demonstrate the existing ED of the host hospital is operating at or above capacity.

The applicant is demonstrating the need to decompress volumes at the host hospital ED.

A. Visits Per Treatment Room

Determination of ED Range Using ACEP Guidelines

Factor	Erlanger Med. Ctr. ED/range	Children's @ Erlanger ED/range	Erlanger East ED/range
% Emergency Department Patients Admitted as Inpatients	**35.8%-high**	**8%-low**	**7.4%-low**
Length of Stay (Hours) in ED	**6 hrs. 3 min.-high**	**2 hrs. 26 min.-med**	**3 hrs. 1 min.-med**
% of ED Patients seen in Private Rooms	**N/A**	**N/A**	**100%**
% of patients that will be moved from patient rooms to inner waiting or results waiting areas	**0%**	**0%**	**0%**
% of observation and extended stay patient remaining in ED	**0%**	**0%**	**0%**

# Average Minutes an ED patient admitted as an inpatient remains in ED	**500 min high**	**n/a**	**306 min high**
Average turnaround time (minutes) for results for lab studies	**74 min Mid**	**67 min Mid**	**41 min Mid**
Average turnaround time (minutes) for results for imaging studies	**86 min Mid**	**76 min Mid**	**53 min Mid**
% of behavioral health ED patients	**2.0% low**	**1.0% low**	**0.9% low**
% of ED patients either ESI 4 or 5	**31.0% Mid**	**17.8% high**	**42.4% Mid**
% of ED patients Age 65+	**9.3% low**	**0.0% low**	**15.4% Mid**
% of imaging studies performed in ED	**41.0% Mid**	**34.0% Mid**	**21.0% Low**
Provisions in ED for family consult/grieving rooms	**Yes Mid**	**Yes Mid**	**Yes Mid**
Availability of geriatric specialty area	**No**	**No**	**No**
Availability of pediatric specialty area	**No**	**No**	**No**
Availability of prisoner/detention patient specialty area	**No**	**No**	**No**
Availability of administrative/teaching specialty area	**Yes Mid**	**Yes Mid**	**Yes Mid**
The Range Where Majority of Above Factors Fall, i.e. Low, Mid or High range	**Mid**	**Mid**	**Mid**

Source: CN1802-011

Host Hospital ED Visits Per Treatment Room

	Emergency Department Design: A Practical Guide to Planning, American College of Emergency Physicians – Estimates for Emergency Department Areas and Beds				
Facility/Standard	**2016 Annual Visits**	**Dept. Gross Area**	**Bed Quantities**		
		Square Footage	**Bed Quantity**	**Visits/Beds**	**Area/Bed**
Erlanger Medical Center (main campus)	**49,815**	**22,632**	**38**	**1,311**	**596**
***ACEP Standard**			**35.5**	**1,435**	**825**
Children's @ Erlanger ED	**40,993**	**13,591**	**33**	**1,242**	**412**
***ACEP Standard**			**29**	**1,406**	**838**
Erlanger East ED	**34,799**	**23,535**	**17**	**2,047**	**1,384**
***ACEP Standard**			**26**	**1,386**	**838**

Source: CN1802-011

**Mid-Range*

Erlanger Main Campus

- *Erlanger Medical Center's treatment room quantity is above the ACEP Guideline for Mid-Range Facilities*
- *Erlanger Medical Center's visits/treatment room is below the ACEP Guideline for Mid-Range Facilities*
- *Erlanger Medical Center's square footage/treatment room is below the ACEP Guideline for Mid-Range Facilities*

Children's at Erlanger ED

- *Children's at Erlanger ED treatment room quantity is above the ACEP Guideline for Mid-Range Facilities*
- *Children's at Erlanger ED visits/treatment room is above the ACEP Guideline for Mid-Range Facilities*
- *Children's at Erlanger ED square footage/treatment room is below the ACEP Guideline for Mid-Range Facilities*

Erlanger East ED

- *Erlanger East ED's treatment room quantity is below the ACEP Guideline for Mid-Range Facilities*
- *Erlanger East ED's visits/treatment room is above the ACEP Guideline for Mid-Range Facilities*
- *Erlanger Medical Center's square footage/treatment room is above the ACEP Guideline for Mid-Range Facilities*

The applicant should discuss why expansion of the existing ED is not a viable option.

The applicant states that on-site expansion of facilities at Erlanger Medical Center, Children's Hospital @ Erlanger, and Erlanger East Hospital will not address the void in emergency facilities for Polk County residents. Likewise, expansion in place will not remedy the absence of trauma facilities in Bradley County. The applicant states patients in need of emergency care out-migrate by choice to Erlanger facilities.

B. Additional Data

The applicant is encouraged to provide additional evidence of the capacity, efficiencies, and demographics of patients served within the existing host hospital ED facility in order to better demonstrate the need for expansion. The applicant may provide data relevant to patient acuity levels, age of patients, percentage of behavioral health patients, and existence of specialty modules.

Additional Data to Demonstrate Need in the Proposed Service Area

Emergency Department	% of Behavioral Health Patients	State Wide Average	% of High-Acuity Patients	Statewide Average	% of Patients Ages 65+	Statewide Average
Tennova-Cleveland	**3.6%**	**3.3%**	**7.7%**	**8.8%**	**19.0%**	**17.6%**

Source: CN1802-011

The applicant reported the following data:

- *Tennova Healthcare-Cleveland Emergency Department's 2016 percentage of behavioral health patients was 3.6% as compared to the statewide average of 3.3%.*
- *Tennova Healthcare-Cleveland Emergency Department's 2016 percentage of Level I (resuscitation) and Level II (emergency) patients was 7.7% as compared to the statewide average of 8.8%.*
- *Tennova Healthcare-Cleveland Emergency Department's 2016 percentage of patients age 65+ was 19.0% as compared to the statewide average of 17.6%.*

3. Relationship to Existing Similar Services in the Area

A. All Applicants

The proposal shall discuss what similar services are available in the service area and the trends in occupancy and utilization of those services.

2016 Hospital ED Utilization in the Proposed Service Area (PSA)

Hospital ED	County	PSA Resident ED Visits at Hospital ED (A)	Total Service Area Resident ED Visits (B)	Market Share in Service Area ((A)/(B)) X 100 = Market Share %
Tennova Healthcare-Cleveland	Bradley	41,486	61,911	67%
Tennova Healthcare-Westside	Bradley	175	61,911	0.3%
Copper Basin Medical Center (Closed)	Polk	3,424	61,911	5.5%
Erlanger Medical Center (main campus)	Hamilton	5,770	61,911	9.3%
CHI Memorial Hospital-Chattanooga	Hamilton	2,687	61,911	4.3%
Erlanger East Hospital	Hamilton	1,721	61,911	2.8%
Parkridge Medical Center	Hamilton	759	61,911	1.2%
Parkridge East Hospital	Hamilton	715	61,911	1.2%
CHI Memorial Hixson	Hamilton	257	61,911	0.4%
Erlanger North Hospital	Hamilton	94	61,911	0.2%
Parkridge Valley Adult and Senior Campus	Hamilton	4	61,911	0.0%
Other TN Hospitals	All Other TN Counties	4819	61,911	7.8%
Total		61,911		
Satellite ED Visits YR 1		**14,000**		

Source: CN1802-011

The table above reflects the following:

- *41,486 ED visits took place at Tennova Healthcare Cleveland or 67% of the total proposed service area visits.*
- *5,770 ED visits took place at Erlanger Medical Center (main campus) or 9.3% of the total proposed service area visits.*
- *3,424 ED visits took place at Copper Basin Medical Center (closed) or 5.5% of the total proposed service area visits.*

Market Shares of ED Facilities in the Proposed Service Area

ZIP Code/County	% Highest Market Share ED	% 2nd Highest Market Share ED	% 3rd Highest Market Share ED	% Applicant Host ED (if not top 3)
Bradley County	Tennova Cleveland	Erlanger Medical Center	CHI Memorial Hospital	N/A
Polk County	Tennova Cleveland	Copper Basin	Starr Regional Etowah	8.2%

Source: CN1802-011

- *In 2016 Tennova Healthcare-Cleveland had the highest ED market share in Bradley and Polk Counties.*

The discussion shall include the likely impact of the proposed FSED on existing EDs in the service area and shall include how the applicant's services may differ from existing services.

- *The applicant indicates the only emergency department in the proposed service area is Tennova Healthcare-Cleveland. Since it does not offer trauma care, the impact of Erlanger Bradley County is expected to be limited.*

Approval of the proposed FSED should be contingent upon the applicant's demonstration that existing services in the applicant's proposed geographic service area are not adequate and/or there are special circumstances that require additional services.

- *The applicant is demonstrating low quality of emergency care in the proposed service area. The applicant indicates Tennova Healthcare-Cleveland has longer treatment times for most metrics as compared with other EDs in Tennessee and nationally.*

4. Host Hospital Emergency Department Quality of Care

The quality of the host hospital should be in the top quartile of the state in order to be approved for the establishment of a FSED.

Quality of Care Provided at the Host Hospital ED

Measure	Quarter(s) /Year(s)	ED Time/ Score	Check (X) Applicable Quartile			
			≤25th Percentile	25th-50th Percentile	50th-75th Percentile	≥75th Percentile
OP-1: Median Time to Fibrinolysis	**2016**	*				
OP-2: Fibrinolytic Therapy Received Within 30 Minutes	**2016**	*				
OP-4: Aspirin at Arrival	**2016**	**85 min.**	✓			
OP-5: Median Time to ECG	**2016**	**8 min.**			✓	
OP-18: Median Time from ED Arrival to Departure for Discharged ED Patients	**2016**	**138 min.**			✓	
OP-20: Door to Diagnostic Evaluation by a Qualified Medical Personnel	**2016**	**29 min**				✓
OP-21: ED-Median Time to Pain Management for Long Bone Fracture	**2016**	**44 min**		✓		
OP-23: ED-Head CT or MRI Scan Results for Acute Ischemic Stroke or Hemorrhagic Stroke Patients who Received Head CT or MRI Scan Interpretation With 45 Minutes of ED Arrival	**2016**	*				

Source: CN1802-011

The applicant was in the top quartile (>75th percentile) in one of the five measures where there was data to report. The applicant was between the 1st quartile and 3rd quartile for the remaining measures.

It appears that this criterion was partially met.

5. Appropriate Model for Delivery of Care

The applicant should discuss why a FSED is the appropriate model for the delivery of care in the proposed service area.

- *The applicant indicates Erlanger is a safety net provider for the southeast region of Tennessee and promotes a system of care that helps to ensure patients are treated at the correct facility.*

- *Erlanger has six LifeForce air ambulance helicopters that are stationed in locations to provide ready transport to those in need throughout the region.*

- *In 2013 the health status rank of Sequatchie County was 91, and by 2018 the health status rank had improved to 53. The applicant attributes this improvement to Erlanger's experience with the provider based FSED in Dunlap (Sequatchie County), TN.*

6. Geographic Location

The FSED should be located within a 35 mile radius of the hospital that is the main provider. A map should also be provided as evidence.

The proposed Erlanger FSED is 27.2 miles from Erlanger Medical Center (Hamilton County). A map indicating the distance between the proposed FSED and Erlanger's Main campus ED is located on page 46 of the application.

It appears that this criterion has been met.

7. Access

The applicant must demonstrate an ability and willingness to serve equally all of the service area in which it seeks certification.

The applicant indicates Erlanger Health System is the safety net provider for southeast Tennessee and the surrounding states. Annually, Erlanger Health System provides approximately $110 million in uncompensated care. The proposed project will continue to serve those in need on an equal basis, regardless of ability to pay.

8. Services to High Need Populations

Special consideration shall be given to applicants providing services fulfilling the unique needs and requirements of certain high-need populations, including patients who are uninsured, low income, or patients with limited access to emergency care.

Services to High Need Populations by Payor

Payor	Bradley Total ED Patients	% Total	Polk Total ED Patients	% Total	Erlanger Main and East	% Total
Medicare/Medicaid Advantage	14,521	28.5%	3,039	27.6%	1369	18.3%
TennCare/Medicaid	16,073	31.6%	4,087	37.1%	2714	36.2%
Commercial/Commercial Other	11,233	22.1%	2,057	18.7%	2237	29.9%
Self-Pay Medically Indigent/Free	1,784	3.5%	982	8.9%	728	9.7%
Other (other govt payor programs)	7,293	14.3%	842	7.7%	443	5.9%
Total	**50,904**	**100.0%**	**11,007**	**100%**	**47,326**	**100%**

Source: Payor Data 2016

The table above displays that the host hospital's payor mix is similar to the payor mix of the proposed service area except for having a lower percentage of Medicare/Medicaid Avantage patients (36.2%) and a higher percentage of commercial patients (29.9%).

9. Establishment of Service Area

The geographic service area shall be reasonable and based on an optimal balance between population density and service proximity of the applicant.

Patient Origin, Ranked Highest to Lowest, Erlanger Medical Center

County	Erlanger ED Visits	% of Total
Proposed FSED Service Area		
Bradley	4,950	85.8%
Polk	820	14.2%
Total	**5,770**	100%

ED Patient Destination by Hospital ED (2016)

(Include all EDs with 50 or More Patients from a ZIP Code)

County	Service Area ED Patients ED 1	Service Area ED Patients ED 2	Service Area ED Patients ED 3	Service Area ED Patients ED 4	*Other Hospital ED Patients	Total
Bradley	Tennova Cleveland 37,899 - 74.5% patients	Erlanger Medical 4,950- 9.7% patients	CHI Memorial Hospital 2,423- 4.8%	Erlanger East Hospital 1,637 3.2%	562 1.0%	50,904
Polk	Tennova Cleveland 3,587- 32.6%	Copper Basin Medical Center 3,381 30.7%	Starr Regional Med. Ct.- Etowah 1,714- 15.6%	Erlanger Medical Center- 820 7.4%	215 1.9%	11,007

*Sub-total of ZIP Codes ED patients to hospitals with less than 50 patients

- *9.7% of the host hospital's ED patients reside in Bradley County while 7.4% reside in Polk County.*
- *Tennova-Cleveland, has the largest market share in Bradley County (74.5%) and in Polk County (32.6%).*

10. Relationship to Existing Applicable Plans; Underserved Area and Population

The proposal's relationship to underserved geographic areas and underserved population groups shall be a significant consideration.

Underserved Geographic Areas and Underserved Population Groups

Proposed Service Area ZIP Code and/or County	Medically Underserved Area Check (✓) if Applicable	Medically Underserved Populations Check (✓) if Applicable	Health Professional Shortage Area Check (✓) if Applicable	Shortage Area for Mental Health Services Check (✓) if Applicable
Bradley	✓		✓	✓
Polk	✓		✓	✓

11. Composition of Services

Laboratory and radiology services, including but not limited to XRAY and CT scanners, shall be available on-site during all hours of operation. The FSED should also have

ready access to pharmacy services and repository services during all hours of operation.

The applicant will provide all the services listed above on-site.

12. Pediatric Care

The applicant should demonstrate a commitment to maintaining at least a Primary Level of pediatric care at the FSED as defined by CHAPTER 1200-08-30 Standards for Pediatric Emergency Care Facilities including staffing levels, pediatric equipment, staff training, and pediatric services. Applicants should include information detailing the expertise, capabilities, and/or training of staff to stabilize or serve pediatric patients. Additionally, applicants shall demonstrate a referral relationship, including a plan for the rapid transport, to at least a general level pediatric emergency care facility to allow for a specialized higher level of care for pediatric patients when required.

Erlanger Bradley County will provide emergency services to adults and children. Children's Hospital, located in Chattannoga (Hamilton County), TN is a state designated regional pediatric center. Erlanger Bradley County will have a helipad to foster patient transfer as needed.

13. Assurance of Resources

The applicant shall document that it will provide the resources necessary to properly support the applicable level of emergency services. Such documentation should include, but not limited to, a letter of support from applicant's governing board of directors or chief financial officer.

The applicant provided a letter from the Executive Vice President, CFO and Treasurer of Erlanger documenting the availability of resources and commitment to use them.

14. Adequate Staffing

A. All Applicants

The applicant shall document a plan demonstrating the intent and ability to recruit, hire, train, assess competencies of, supervise, and retain the appropriate numbers of qualified personnel to provide the services described in the application and that such personnel are available in the proposed service area. If the applicant plans to contract with an emergency physician group, the applicant should provide information on the physician group's ability to meet the staffing requirements.

Staffing Patterns

Position Type	FTEs Needed for Proposed FSED	FTEs Currently Employed	FTEs that will be Recruited
Physicians	4.4	-	4.4
Advanced Practice Nurse	4.4	-	4.4
Registered Nurses	8.9	-	8.9
ER Tech	-	-	-
EVS Tech	.7	-	.7
Radiology Tech	1.3	-	1.3
CT Tech	3.0	-	3.0
Ultrasonographer	3.0	-	3.0
Cardiac Specialist	2.0	-	2.0
Medical Tech	5.6	-	5.6
Pharmacist Staff	1.0	-	1.0
Other	11.5	-	11.5
Total	**45.8**		**45.8**

Source: CN1802-011

15. Medical Records

The medical records of the FSED shall be integrated into a unified retrieval system with the host hospital.

The medical records of the proposed FSED will be part of the Erlanger Health System's integrated electronic medical record system.

16. Stabilization and Transfer Availability for Emergent Cases

The applicant shall demonstrate the ability of the proposed FSED to perform stabilizing treatment within the FSED and demonstrate a plan for the rapid transport of patients from the FSED to the most appropriate facility with a higher level of emergency care for further treatment. The applicant is encouraged to include air ambulance transport and an on-site helipad in its plan for rapid transport. The stabilization and transfer of emergent cases must be in accordance with the Emergency Medical Treatment and Labor Act.

Erlanger currently maintains transfer agreements with many community hospitals in the regional service area. A complete list is located in the attachments. The proposed FSED will have a helipad to accommodate LifeForce air ambulance and helicopter transfer. As

necessary, the stabilization and transfer of emergent cases will be in accordance with the Emergency Medical Treatment and Labor Act.

17. Education and Signage

The applicant shall demonstrate how the organization will educate communities and emergency medical services (EMS) on the capabilities of the proposed FSED and the ability for the rapid transport of patients from the FSED to the most appropriate hospital for further treatment. It should also inform the community that inpatient services are not provided at the facility and patients requiring inpatient care will be transported by EMS to a full service hospital. The name, signage, and other forms of communication of the FSED shall clearly indicate that it provides care for emergency and/or urgent medical conditions without the requirement of a scheduled appointment. The applicant is encouraged to demonstrate a plan for educating the community on appropriate use of emergency services contrasted with appropriate use of urgent or primary care.

The applicant has a plan to educate the community on the provision of FSED services. Public communication will include display advertisements in the local newspaper to include the nature and type of services available, which will contrast the difference between emergency care, urgent care and primary care.

18. Community Linkage Plan

The applicant shall describe its participation, if any, in a community linkage plan, including its relationships with appropriate health and outpatient behavioral health care system, including mental health and substance use, providers/services, providers of psychiatric inpatient services, and working agreements with other related community services assuring continuity of care. The applicant is encouraged to include primary prevention initiatives in the community linkage plan that would address risk factors leading to the increased *likelihood of ED usage.*

The applicant's community linkage plan includes business development and physician liaison staff that has been collecting data about the need for emergency services in the proposed 2 county service area. The applicant's community linkage plan will ensure the proposed FSED is effectively linked to available community resources to include outpatient and inpatient behavioral health providers and mental health and substance abuse services and providers.

It appears that this criterion <u>will be</u> met.

19. Data Requirements

The applicant shall agree to provide the Department of Health and/or the HSDA with all reasonably requested information and statistical data related to the operation and provision of services and to report that data in the time and format requested. As a standard practice, existing data reporting streams will be relied upon and adapted over time to collect all needed information.

The applicant agrees to comply with this standard.

It appears that this criterion will be met.

20. Quality Control and Monitoring

The applicant shall identify and document its existing or proposed plan for data reporting, quality improvement, and outcome and process monitoring system. The FSED shall be integrated into the host hospital's quality assessment and process improvement processes.

The proposed FSED will be accredited by The Joint Commission and the American College of Surgeons. The proposed FSED will be integrated into the host hospital's quality assessment and process improvement process.

It appears that this criterion will be met.

21. Provider-Based Status

The applicant shall comply with regulations set forth by 42 CFR 413.65, *Requirements for a determination that a facility or an organization has provider-based status,* in order to obtain provider-based status. The applicant shall demonstrate eligibility to receive Medicare and Medicaid reimbursement, willingness to serve emergency uninsured patients, and plans to contract with commercial health insurers.

The applicant will serve all patients regardless of ability to pay and will accept patients with Medicare, Medicaid, and commercial insurance. The applicant commits to comply with regulations set forth by 42 CFR 413.65.

It appears that this criterion will be met.

22. Licensure and Quality Considerations

Any applicant for this CON service category shall be in compliance with the appropriate rules of the TDH, the EMTALA, along with any other existing applicable federal guidance and regulation. The applicant shall also demonstrate its accreditation status with the Joint Commission or other applicable accrediting agency. The FSED shall be subject to the same accrediting standards as the licensed hospital with which it is associated. Applicants should address the applicable quality measures found in the HSDA Agency Rules.

The applicant attests to the compliance with appropriate rules of all licensing, certifying, and accrediting agencies. Erlanger Bradley County will be accredited by The Joint Commission and the American Colleges of Surgeons.

It appears that this criterion will be met.

SPECIFIC CRITERIA AND STANDARDS REVIEW:

Cardiac Catheterization Services

Note to Agency members: The need determination for cardiac catheterization is based on a weighted system. This system considers three categories of diagnostic catheterizations and three types of therapeutic catheterizations. The three categories are cardiac catheterization, peripheral vascular catheterization, and electrophysiological study. The definition of these studies follows:

Diagnostic Cardiac Catheterization: The performance of cardiac catheterization for the purpose of detecting and identifying defects in the great arteries or veins of the heart, or abnormalities in the heart structure, whether congenital or acquired. Diagnostic cardiac catheterization services include, but are not limited to, left heart catheterizations, right heart catheterizations, left ventricular angiography, coronary procedures, and other cardiac catheterization services of a diagnostic nature. Post-operative evaluation of the effectiveness of prostheses also can be accomplished through a diagnostic catheterization procedure.

Therapeutic Cardiac Catheterization: The performance of cardiac catheterization for the purpose of correcting or improving certain conditions that have been determined to exist in the heart or great arteries or veins of the heart. This includes Percutaneous Coronary

Interventions (PCI) or any catheter-based treatment procedures for relieving coronary artery narrowing. Included within this definition are procedures such as rotational atherectomy, directional atherectomy, extraction atherectomy, laser angioplasty, implantation of intracoronary stents, brachytherapy, and other catheter treatments for treating coronary atherosclerosis.

Diagnostic Peripheral Vascular Catheterization: An invasive diagnostic test in which a catheter is inserted into a peripheral vein or artery to inject dye (contrast medium). X-rays are taken of the dye within the arteries, allowing clear visualization of the blood flow inside the artery where peripheral vascular disease can occur. This test may be performed within a cardiac catheterization laboratory.

Therapeutic Peripheral Vascular Catheterization: A procedure that can be used to dilate (widen) narrowed or blocked peripheral arteries or to remove a clot or plaque from arteries. In conjunction with or subsequent to peripheral vascular catheterization, a therapeutic procedure may be performed by various means that include balloon angioplasty, stenting, and atherectomy or other mechanical intervention to restore blood flow to the effected organ or tissue. These procedures may be performed within a cardiac catheterization laboratory.

a) *Balloon Angioplasty: A thin tube called a catheter with a deflated balloon on its tip is passed into the narrowed artery segment. The balloon is then inflated, compressing the plaque and dilating the narrowed artery so that blood can flow more easily. The balloon is then deflated and the catheter is withdrawn.*
b) *Peripheral Stenting: A cylindrical, wire mesh tube that expands and locks open -may be placed in the narrowed artery with another catheter to keep the diseased artery open.*
c) *Catheter-based Atherectomy: A procedure for opening up an artery using a specialized catheter inserted into a blocked artery to remove a buildup of plaque. The catheter may contain a sharp rotating blade ("burr" device), dissectional device (grinding bit), or laser filament to remove the plaque. It may be used as a complement to angioplasty and stenting.*

Diagnostic Electrophysiological Study: An invasive test performed that allows an electrophysiologist to determine the details of abnormal heartbeats, or arrhythmias. Measurements related to the electrical system within the heart are made at baseline and during stimulation to provide

information about the exact location and type of arrhythmia so that specific treatment can be given. During this testing, cardiac mapping through the use of catheter manipulation or 3-dimensional systems may take place. The arrhythmia may start from any area of the heart's electrical conduction.

Therapeutic Electrophysiological Study: In conjunction with the diagnostic electrophysiological study, a therapeutic procedure called catheter ablation may be performed. Catheter ablation is most commonly done through the delivery of radio-frequency energy or cryo-energy to an area of the heart to selectively destroy cardiac tissue.

The weighting system is displayed in the following chart:

Category	*Weight*
Diagnostic Cardiac Catheterization	***1***
Diagnostic Peripheral Vascular Catheterization	***1.5***
Therapeutic Cardiac Catheterization	***2.0***
Therapeutic Peripheral Vascular Catheterization	***3.0***
Diagnostic Electrophysiological Studies	***2.0***
Therapeutic Electrophysiological Studies	***4.0***
Pediatrics	*Double Adult Weight*

Applicants proposing to provide any type of cardiac catheterization services must meet the following minimum standards:

I Compliance with Standards: The Division of Health Planning is working with stakeholders to develop a framework for greater accountability to these Standards and Criteria. Applicants should indicate whether they intend to collaborate with the Division and other stakeholders on this matter.

The applicant intends to collaborate with the Division of Health Planning and other stakeholders.

It appears that this criterion is met.

2. Facility Accreditation: If the applicant is not required by law to be licensed by the Department of Health, the applicant should provide documentation that the facility is fully accredited or will pursue accreditation by the Joint Commission or another appropriate accrediting authority recognized by the Centers for Medicare and Medicaid Services (CMS).

The applicant has provided documentation that it is licensed by the Department of Health and certified by The Joint Commission. In addition, the applicant will seek accreditation by the Accreditation for Cardiovascular Excellence (ACE).

It appears that this criterion is met.

3. Emergency Transfer Plan: Applicants for cardiac catheterization services located in a facility without open heart surgery capability should provide a formalized written protocol for immediate and efficient transfer of patients to a nearby open heart surgical facility (within 60 minutes) that is reviewed/tested on a regular (quarterly) basis.

Erlanger Bradley County, as a satellite facility of Erlanger Medical Center has a formalized written protocol for immediate and efficient transfer of patients to Erlanger Medical Center (Hamilton County).

It appears that this criterion is met.

4. Quality Control and Monitoring: Applicants should document a plan to monitor the quality of its cardiac catheterization program, including, but not limited to, program outcomes and efficiency. In addition, the applicant should agree to cooperate with quality enhancement efforts sponsored or endorsed by the State of Tennessee, which may be developed per Policy Recommendation 2.

The applicant has provided a plan to monitor quality and indicates the quality enhancement efforts by the State of Tennessee will be followed. As previously noted, the applicant will seek accreditation by Accreditation for Cardiovascular Excellence (ACE).

It appears that this criterion is met.

5. Data Requirements: Applicants should agree to provide the Department of Health and/or the Health Services and Development Agency with all reasonably requested information and statistical data related to the operation and provision of services and to report that data in the time and format requested. As a standard of practice, existing data reporting streams will be relied upon and adapted over time to collect all needed information.

The applicant agrees to provide all relevant requested data.

It appears that this criterion is met.

6. Clinical and Physical Environment Guidelines: Applicants should agree to document ongoing compliance with the latest clinical guidelines of the American College of Cardiology/Society for Cardiac Angiography and Interventions Clinical Expert Consensus Document on Cardiac Catheterization Laboratory Standards (ACC Guidelines).

   Where providers are not in compliance, they should maintain appropriate documentation stating the reasons for noncompliance and the steps the provider is taking to ensure quality. These guidelines include, but are not limited to, physical facility requirements, staffing, training, quality assurance, patient safety, screening patients for appropriate settings, and linkages with supporting emergency services.

   The applicant has agreed to comply with the latest clinical and physical environmental guidelines of the American College of Cardiology/Society for Cardiac Angiography and Interventions and physical environment guidelines.

   It appears that this criterion is met.

7. Staffing Recruitment and Retention: The applicant should generally describe how it intends to maintain an adequate staff to operate the proposed service, including, but not limited to, any plans to partner with an existing provider for training and staff sharing.

   Erlanger Bradley County will rotate appropriate staff to the proposed cardiac catheterization laboratory from the laboratory at Erlanger Medical Center.

   It appears that this criterion is met.

8. Definition of Need for New Services: A need likely exists for new or additional cardiac catheterization services in a proposed service area if the average current utilization for all existing and approved providers is equal to or greater than 70% of capacity (i.e., 70% of 2000 cases) for the proposed service area.

   During 2014-2016, the existing cardiac catheterization lab in the 2-county service

area at Tennova Cleveland (Bradley County) had a total capacity for 2,000 cath procedures, but actually performed 683.5 weighted cath procedures. According to the Tennessee Department of Health, the lab operated at 34.1% of the 2000 case per lab threshold or 48.8% of the 70% of capacity threshold (1,400 cases).

It appears that this criterion is not met.

Note to Agency Members: In supplemental #1, the applicant clarified that Hamilton County is not included in the proposed service area; however, the cardiac catheterization utilization was included by the applicant to demonstrate the need to decompress volume on the main campus of Erlanger Medical Center. In 2016, Erlanger Medical Center provided cath services to 223 Bradley County and 56 Polk County residents.

9. Proposed Service Areas with No Existing Service: In proposed service areas where no existing cardiac catheterization service exists, the applicant must show the data and methodology used to estimate the need and demand for the service. Projected need and demand will be measured for applicants proposing to provide services to residents of those areas as follows:

   Need. The projected need for a service will be demonstrated through need-based epidemiological evidence of the incidence and prevalence of conditions for which diagnostic and/or therapeutic catheterization is appropriate within the proposed service area.

   Demand. The projected demand for the service shall be determined by the following formula:

   A. Multiply the age group-specific historical state utilization rate by the number of residents in each age category for each county included in the proposed service area to produce the projected demand for each age category;
   B. Add each age group's projected demand to determine the total projected demand for cardiac catheterization procedures for the entire proposed service area.

There is currently one cardiac therapeutic catheterization provider in the proposed 2 county Tennessee service area.

It appears that this criterion is not applicable.

10. Access: In light of Rule 0720-4-.01 (1), which lists the factors concerning need on which an application may be evaluated, the HSDA may decide to give special consideration to an applicant:

    a. Who is offering the service in a medically underserved area as designated by the United States Health Resources and Services Administration;

    Both counties in the proposed two county service area are designated as medically underserved areas.

    It appears that this criterion is met.

    b. Who documents that the service area population experiences a prevalence, incidence and/or mortality from heart and cardiovascular diseases or other clinical conditions applicable to cardiac catheterization services that is substantially higher than the State of Tennessee average;

    Bradley and Polk Counties have an average heart disease mortality rate (all ages) higher than the 2015 State rate of 207.3 deaths per 100,000. The heart disease mortality rate (deaths per 100,000) in Bradley County was 219.3 and 225.6 in Polk County.

    It appears that this criterion is met.

    Who is a "safety net hospital" as defined by the Bureau of TennCare Essential Access Hospital payment program; or

    Erlanger Bradley County, as a satellite of Erlanger Medical Center, will be a component facility of the designated safety net hospital by the Bureau of TennCare Essential Access Hospital payment program.

    c. Who provides a written commitment of intention to contract with at least one TennCare MCO and, if providing adult services, to participate in the Medicare program.

The applicant contracts with all MCOs in East Tennessee and participates in the Medicare program.

It appears that this criterion is met.

Applicants proposing to provide therapeutic cardiac catheterization services must meet the following minimum standards:

14. Minimum Volume Standard: Such applicants should demonstrate that the proposed service utilization will be a minimum of 400 diagnostic and/or therapeutic cardiac catheterization cases per year by its third year of operation. At least 75 of these cases per year should include a therapeutic cardiac catheterization procedure. Annual volume shall be measured based upon a two-year average which shall begin at the conclusion of the applicant's first year of operation. Only cases including diagnostic and therapeutic cardiac catheterization procedures as defined by these Standards and Criteria shall count towards meeting this minimum volume standard.

Erlanger Bradley County projects 428 actual (non-weighted) total adult cardiac catheterization lab cases in Year 3 of which 321 cases will be therapeutic caths. Please see the table below.

	Diagnostic Cases	Interventional Cases	Total Cases
Year One	65	185	250
Year Two	104	312	416
Year Three	107	321	428
Year Four	110	331	441
Year Five	113	341	454

Source: CN1802-011, Supplemental #1

It appears that this criterion is met.

15. Open Heart Surgery Availability: Acute care facilities proposing to offer adult therapeutic cardiac catheterization services shall not be required to maintain an on-site open heart surgery program. Applicants without on-site open heart surgery should follow the most recent American College of Cardiology/American Heart Association/Society for Cardiac Angiography and Interventions Practice Guideline Update for Percutaneous Coronary Intervention (ACC/AHA/SCAI Guidelines). As of the adoption of these Standards

and Criteria, the latest version of this document (2007) may be found online at:
http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.107.185159

Therapeutic procedures should not be performed in freestanding cardiac catheterization laboratories, whether fixed or mobile. Mobile units may, however, perform therapeutic procedures provided the mobile unit is located on a hospital campus and the hospital has on-site open heart surgery. In addition, hospitals approved to perform therapeutic cardiac catheterizations without on-site open heart surgery backup may temporarily perform these procedures in a mobile laboratory on the hospital's campus during construction impacting the fixed laboratories.

Erlanger Bradley County will maintain compliance with the most recent American College of Cardiology/American Heart Association/Society for Cardiac Angiography and Interventions Practice Guideline Update for Percutaneous Coronary Intervention (ACC/AHA/SCAI Guidelines).

It appears that this criterion is met.

16. Minimum Physician Requirements to Initiate a New Service: The initiation of a new therapeutic cardiac catheterization program should require at least two cardiologists with at least one cardiologist having performed an average of 75 therapeutic procedures over the most recent five year period. All participating cardiologists in the proposed program should be board certified or board eligible in cardiology and any relevant cardiac subspecialties.

Erlanger Bradley County will have a minimum of 2 cardiologists with a least 1 cardiologist who performed an average 75 therapeutic procedures over the most recent five year period. The applicant provided a table of historical therapeutic cardiac catheterizations performed by Erlanger affiliated cardiologists for the past 5 years on page 57 of Supplemental #1.

It appears that this criterion is met.

17. Staff and Service Availability: Ideally, therapeutic services should be available on an emergency basis 24 hours per day, 7 days per week through a staff call schedule (24/7 emergency coverage). In

addition, all laboratory staff should be available within 30 minutes of the activation of the laboratory. If the applicant will not be able to immediately provide 24/7 emergency coverage, the applicant should present a plan for reaching 24/7 emergency coverage within three years of initiating the service or present a signed transfer agreement with another facility capable of treating transferred patients in a cardiac catheterization laboratory on a 24/7 basis within 90 minutes of the patient's arrival at the originating emergency department.

Erlanger Bradley County intends to meet all the above staff and service availability requirements.

It appears that this criterion is met.

18. Expansion of Services to Include Therapeutic Cardiac Catheterization: An applicant proposing the establishment of therapeutic cardiac catheterization services, who is already an existing provider of diagnostic catheterization services, should demonstrate that its diagnostic cardiac catheterization unit has been utilized for an average minimum of 300 cases per year for the two most recent years as reflected in the data supplied to and/or verified by the Department of Health.

The applicant is not seeking to expand an existing service, only to initiate new cardiac catheterization services.

Staff Summary

The following information is a summary of the original application and all supplemental responses. Any staff comments or notes, if applicable, will be in bold italics.

Application Synopsis

The applicant is seeking Certificate of Need approval for the establishment of a satellite emergency department (ED) to be operated under the license of Erlanger Medical Center. The satellite ED will be located in a newly constructed 12,383 square foot (SF) single story building on a 2.9 acre unaddressed site in Bradley County, approximately 27.2 miles from Erlanger Medical Center's main campus. The proposed FSED will be located at the southeast quadrant of exit 20 northbound on US interstate 75, Cleveland (Bradley County) TN.

Erlanger Bradley County's proposed satellite ED will provide a full range of Level 1- level 5 emergency care services 24 hours-a-day, 7 days a week to adult and pediatric patients as well as ancillary services, including, but not limited to, medical lab, X-Ray, CT, and ultrasound imaging services.

An overview of the project is provided in the Executive Summary on pages 3-10 of the original application. If approved, the satellite emergency department is projected to open in May 2020.

Need

- The applicant indicates the proposed satellite ED is needed to decompress the ED volume at Erlanger East Hospital. The ED opened in 2013 and under the American College of Emergency Physicians standards the ED should accommodate a capacity of 25,000 visits, in 2017 the total was 34,799.
- Erlanger Medical Center's main campus is experiencing high volumes in FY 2018 projecting to be between 88,000 and 90,000 visits. With the only Level I trauma center in Hamilton County, Erlanger has the need to decompress the volume at Erlanger Medical Center's main campus to assure access to needed services.
- The Erlanger Bradley Emergency Department will be part of Erlanger's Trauma Network, which includes a base for a LifeForce air ambulance already located at the Cleveland regional airport.
- Bradley County emergency service transports an average of 600 patients per year to Erlanger Medical Center that will decrease if the Erlanger Bradley County ED is approved.
- In 2016 there were 15,428 visits, or 24.9% of all ED visits from the service area that chose to out-migrate from the proposed 2 county service area to Chattanooga hospitals. An analysis of ED visits by patient destination is included in a chart on page 12 of the application.
- For 2017, the average number of emergency visits per room at Erlanger Medical Center was 2,390 (90,808 Total Visits/38 treatment rooms), or 148.2% of the ACEP high range guideline of 1,613 visits per treatment room.

Ownership

- The applicant, Erlanger Bradley County, is owned by Chattanooga-Hamilton County Hospital Authority d/b/a the Erlanger Health System.
- Chattanooga-Hamilton County Hospital Authority d/b/a the Erlanger Health System owns Erlanger Medical Center (EMC).

- The components of Erlanger Health System include: Erlanger Medical Center (788 licensed beds) which includes the Children's Hospital at Erlanger (121 licensed beds) on the main campus; Erlanger East Hospital (43 licensed beds) on the East Campus; Erlanger North Hospital (57 licensed beds) on the North Campus.
- In addition to the hospitals in Hamilton County, Erlanger Health System includes separately licensed Erlanger Bledsoe (25 licensed beds) located in Bledsoe County.
- Erlanger Health System is also associated with the Vanderbilt Health Affiliated Network.

Facility Information

- The total gross square footage (SF) of the proposed new 1-story building is 12,383 square feet. The emergency department will total 9,883 SF while the catheterization lab will total 2,500 SF. A floor plan drawing is included in the attachments to the application.
- The proposed satellite ED will contain a lab, 16 exam rooms, including 1 exam room that can be used for a secure holding/isolation room and one trauma room. Also included in the design is one triage station, one decontamination station (with outside access), separate rooms for CT, and X-ray imaging services, reception area, catheterization and recovery areas, and two lounge areas (EMS and staff).
- A main canopied entrance at the front of the building opens to patient reception and general waiting area. A covered entrance for ambulance services is located in the rear of the building.
- The proposed FSED will have a dedicated helipad, via LifeForce Helicopter, for transport to Level I trauma services.
- The proposed satellite ED will be open 24 hours/day, 7 days/week, and 365 days/year.

The Joint Annual Report for 2016 indicates that Erlanger Medical Center was licensed for 788 beds and staffed 604 beds. Licensed bed occupancy was 60.1% and staffed bed occupancy was 75.7%.

The following provides the Department of Health's definition of the two bed categories pertaining to occupancy information provided in the Joint Annual Reports:

- *Licensed Beds - The maximum number of beds authorized by the appropriate state licensing (certifying) agency or regulated by a federal agency. This figure is*

broken down into adult and pediatric beds and licensed bassinets (neonatal intensive or intermediate care bassinets).

- *Staffed Beds - The total number of adult and pediatric beds set up, staffed and in use at the end of the reporting period. This number should be less than or equal to the number of licensed beds.*

Erlanger Hospital Main and Satellite Emergency Department (ED)
Proposed Room Configurations

	Erlanger Medical Center	Children's @ Erlanger	Erlanger East	Total Current EDs	# Proposed Satellite ED	# Proposed Combined EDs
Exam/Treatment Rooms	27	13	18	58	7	65
Multipurpose	6	4		10		10
Gynecological	1			1		1
Holding/Secure/Psychiatric			1	1	1	2
Isolation		2		2	1	3
Orthopedic				0		0
Trauma	1	2		3	1	4
Other		8		8	4	12
Triage Stations	2	2	2	6	1	7
Decontamination Rooms/Stations	1		1	2	1	3
Total	38	31	22	91	16	107
Useable SF of Main and Satellite ED's	22,632	13,591	23,535	59,758	12,883	72,141

Source: CN1802-011, Supplemental #1

Note to Agency members: The applicant reported 79 emergency treatment rooms in the 2016 Joint Annual Report. However, per an email dated May 23, 2018 for clarifying information to the Department of Health, Erlanger reported the following: "Originally reported 79 treatment rooms at Erlanger Medical Center (includes Children's at Erlanger) based on the 2016 JAR report. Subsequent to the filing the JAR report, the number of emergency department treatment rooms was reduced to 69 as a result of the creation of a clinical decision unit. The number of emergency department treatment rooms reported on page 14 of the first CON supplement is 69; however, some of these spaces are not normally considered treatment rooms (ex., triage stations, decontamination spaces) etc.

Service Area Demographics

Erlanger Bradley County's Satellite Emergency Department's declared primary service area is Bradley and Polk Counties.

- The total population of the proposed service area is estimated at 125,278 residents in calendar year (CY) 2018 increasing by approximately 3.6% to 129,727 residents in CY 2022.
- The overall Tennessee statewide population is projected to grow by 4.4% from 2018 to 2022.
- The total 65+ age population is estimated at 22,955 residents in CY 2018 increasing approximately 13.4% to 26,040 residents in 2022.
- The 65+ age population in the state of Tennessee overall is expected to increase 7.8% during the same timeframe.
- The latest 2017 percentage of the service area population enrolled in the TennCare program is approximately 21.6% as compared to the statewide enrollment proportion of 21.2%.

Service Area Historical Utilization

FSED

The applicant's historical and projected utilization is shown in the following table:

Erlanger Medical Center (Historical) and Satellite ED Projected Utilization

	Actual			Projected		
Year	**2015**	**2016**	**2017**	**Yr. 1 2020**	**Yr.2 2021**	**Yr. 3 2022**
Main Campus Visits	97,099	92,685	90,808	91,716	92,633	95,439
Main Campus Rooms	38	38	38	38	38	38
Main Campus Visits/ Room	2,555	2,439	2,390	2,414	2,438	2,512
Satellite Visits				14,000	15,500	17,000
Satellite Rooms				16	16	16
Satellite Visits Per Room				875	969	1,063
Total Visits	97,099	92,685	90,808	105,716	108,133	112,439
Total Rooms	38	38	38	54	54	54
Total Visits Per Room	**2,555**	**2,439**	**2,390**	**1,958**	**2,002**	**2,082**

Source: CN1802-011, Supplemental #1

The table above reflects the following:

- Erlanger's Main ED decreased by approximately 6.5% from 97,099 ED visits in 2015 to 90,808 total ED visits in 2017.

- The applicant expects total main ED visits to increase 1% from 90,808 total main ED visits in 2017 to 91,716 in Year One (2020).
- The applicant projects a 21.4% increase in the proposed Satellite ED's utilization from 14,000 ED visits in Year 1 (2020) to 17,000 visits in Year Three (2022).
- The combined utilization of the main ED and proposed satellite ED is expected to increase by approximately 6.4% from 105,716 total combined visits in 2020 to 112,439 visits (2,082 visits/room) in 2022.

Applicant's ED Utilization by Level of Care

The following table represents the Erlanger Medical Center's historical utilization and projected Year 1 satellite ED utilization by level of care consistent with the CPT evaluation and management (E & M) billing codes, with Level 4 and 5 codes indicating patients with more complex, resource-intensive conditions.

Tennova Cleveland and Satellite ED Historical and Projected Utilization
Emergency Severity Index Level of Care

Level of Care	Main ED	as a % of total	Satellite ED	as a % of total
	2017		**2020**	
Level I-Non-Urgent	3,723	4.1%	966	6.9%
Level II-Less Urgent	18,434	20.3%	4,970	35.5%
Level III-Urgent	37,504	41.3%	5,264	37.6%
Level IV-Emergent	27,878	30.7%	2,632	**18.8%**
Level V-Resuscitation	3,269	3.6%	168	**1.2%**
Total	90,808	**100%**	14,000	**100%**

Source: CN1802-011, Supplemental 1

The table above reflects the following:

- More severe and complex clinical conditions (Levels IV and V) are projected to account for approximately 20% at the proposed satellite ED Year 1.
- Over 37% of the patients are expected to be Level III-Urgent.
- Lowest acuity clinical conditions (Levels I and II) are projected to account for approximately 42.4% at the proposed satellite ED facilities in Year 1.

Cardiac Catheterization

- Tennova Cleveland has the only catheterization lab located in the proposed two county service area.

- During 2014-2016, the one existing cardiac catheterization lab in the 2-county service area at Tennova Cleveland (Bradley County) had a total capacity for 2,000 cath procedures, but actually performed 683.5 weighted cath procedures.

- According to the Tennessee Department of Health, during 2014-2016 the labs operated at 34.1% of the 2000 case per lab threshold or 48.8% of the 70% of capacity threshold (1,400 cases).

- The applicant included the cardiac cath lab utilization for Hanilton County which is located adjacent to the proposed service area. According to the Tennessee Department of Health, during 2014-2016 the 18 cath labs in Hamilton County operated at 116.6% of the 2000 case per lab threshold or 167% of the 70% of capacity threshold (1,400 cases).

Project Cost
Major costs are:

- Construction Cost + Contingency-$4,316,390 or 38.2% of total cost.
- Fixed Equipment-$3,559,902 or 31.5% of total cost.
- Moveable Equipment-$1,797,084 or 15.9% of total cost.
- For other details on Project Cost, see the Project Cost Chart on page 89 of the original application.
- Average total construction cost is expected to be $330.00 per square foot for new construction, which is between the median cost of $274.51 and the 3rd quartile for new construction cost of $330.50/SF of previously approved hospital projects from 2014-2016.

Statewide Hospital Construction Cost per Square Foot
2014-2016

	Renovated Construction	New Construction	Total Construction
1st Quartile	$160.66/sq. ft.	$260.18/sq. ft.	$208.97/sq. ft.
Median	$218.86/sq. ft.	$289.85/sq. ft.	$274.51/sq. ft.
3rd Quartile	$287.95/sq. ft.	$395.94/sq. ft.	$330.50/sq. ft.

Source: HSDA Applicant's Toolbox

Financing
The project will be through cash reserves.

- A copy of a funding commitment letter dated November 12, 2017 from J. Britton Tabor, Erlanger Executive Vice President and CFO is provided in Attachment B-Economic Feasibility-II-2.
- Review of the Audited Combined Financial Statements of Erlanger Health System provided in the attachments revealed cash & cash equivalents of $82,900,927, current assets of $266,298,588 and current liabilities of $118,216,322 for the fiscal year ending June 30, 2016. Based on these amounts, HSDA staff calculated a current ratio of approximately 2.25 to 1.0.

  Note to Agency Members: current ratio is a measure of liquidity and is the ratio of current assets to current liabilities which measures the ability of an entity to cover its current liabilities with its existing current assets. A ratio of 1:1 would be required to have the minimum amount of assets needed to cover current liabilities.

Net Operating Margin Ratio

- The applicant projects a net operating margin ratio for the proposed project of 4.7% in Year 1 and 4.8% in Year 2.

Note to Agency Members: The net operating margin demonstrates how much revenue is left over after all the variable or operating costs have been paid.

Capitalization Ratio

- Erlanger Health System's capitalization ratio is 50.3%.

Note to Agency Members: The capitalization ratio measures the proportion of debt financing in a business's permanent financing mix.

Historical Data Chart

Total Hospital (includes current ED)

- According to the Historical Data Chart Erlanger Medical Center experienced negative Free Cash Flow (Net Balance + Depreciation) for two of the three most recent years reported: $47,152,207 for 2015; ($19,768,726) for 2016; and ($31,300,396) for 2017.

Projected Data Chart
Project Only (FSED)

- 14,000 ED visits are projected in Year 1 (2020) and 15,500 in Year 2 (2021).

- The applicant is projecting positive Free Cash Flow (Net Balance + Depreciation) equaling $1,641,077 in Year 2020 increasing to $2,070,322 in Year 2021.

Erlanger Medical Center-Total Hospital

- The applicant is projecting negative Free Cash Flow (Net Balance + Depreciation) for the total hospital will equal ($14,493,978) in Year 2020 increasing to ($14,769,796) in Year 2021.

Charges

In Year One (2020) of the proposed project, the average charge per ED visit is as follows:

Average Gross Charge

- $2,533

Average Deduction from Operating Revenue

- $2,059

Average Net Charge

- $474

Medicare/TennCare Payor Mix

- The applicant indicates it has contracts with all TennCare MCOs available to its service area population: United HealthCare Community Plan (formerly AmeriChoice), TennCare Select, Blue Care, and AmeriGroup.
- The applicant's projected payor mix in Year 1 of the project is shown in the table below.

Erlanger Bradley County Satellite ED
Service Payor Mix, Year 1

Payor Source	Gross Revenue Year 1	as a % of Gross Revenue Year 1
Medicare	$8,850,457	24.2%
TennCare/Medicaid	$5,566,660	15.7%
Commercial/Other	$16,193,611	45.7%
Self-Pay	$4,432,054	12.5%
Charity Care	$435,456	1.2%
Other	$248,195	0.7%
Total	$35,456,433	100%

Source: CN1802-011

Staffing
The applicant's proposed Year One staffing includes the following:

Position	Projected FTEs Year One (2020)
Nurse Practitioner (Non-Exempt)	4.4
Pharmacist	1.0
Radiology Tech, Spec. Proc.	1.3
RNs	8.9
Cardiac Specialist	2.0
Direct Care Sub-Total	**17.6**
Total Non-Direct Care Positions	**19.1**
Grand Total	**36.7**

Source: CN1802-011

Note: Generally speaking, one (1) FTE is equivalent to an individual that works 2,080 regular hours.

PROVIDE HEALTHCARE THAT MEETS APPROPRIATE QUALITY STANDARDS

Licensure

- Erlanger Medical Center is licensed by the Tennessee Department of Health.
- The most recent licensure survey was conducted on July 19, 2016 as result of a complaint investigation. A follow-up revisit was conducted on September 7, 2016.
- The applicant was notified on September 14, 2016 by the East Tennessee Regional Office, Division of Health Care Facilities, Tennessee Department of Health that Erlanger Medical Center's plan of correction was accepted and the facility was in compliance with all participation requirements.

Certification

- The applicant is currently certified by Medicare and TennCare.

Accreditation

- The Joint Commission conducted an accreditation survey from March 27, 2017 to March 31, 2017 for the purposes of assessing compliance with accreditation requirements.
- The applicant is accredited by The Joint Commission effective April 1, 2017 valid up to 36 months.

Other Quality Standards

- In the first supplemental response the applicant commits to obtaining and/or maintaining the following:
  - Staffing levels comparable to the staffing chart presented in the CON application
  - Licenses in good standing
  - TennCare/Medicare certifications
  - Three years compliance with federal and state regulations
  - Has not been decertified in last three years
  - Self-assessment and external peer assessment processes
  - Data reporting, quality improvement, and outcome/process monitoring systems

CONTRIBUTION TO THE ORDERLY DEVELOPMENT OF HEALTHCARE

Agreements

- The applicant plans to have transfer agreements with the following hospitals which are owned by Erlanger Health System: Erlanger Medical Center; Erlanger East Hospital; Erlanger North Hospital; T.C. Thompson Children's Hospital; and Erlanger Bledsoe Hospital.
- Erlanger currently has patient transfer agreements in place with over 70 hospitals and other providers in the surrounding four state area.

Impact on Existing Providers

- The applicant does not anticipate the proposed project will negatively impact other providers in the service area.

The applicant has submitted the required information on corporate documentation and title and deeds. Staff will have a copy of these documents available for member reference at the meeting. Copies are also available for review at the Health Services and Development Agency's office.

Should the Agency vote to approve this project, the CON would expire in three years.

CERTIFICATE OF NEED INFORMATION FOR THE APPLICANT:

There are no other Letters of Intent, denied applications, or pending applications for this applicant.

Outstanding Certificates of Need

Erlanger East Hospital, CN1601-002A, has an outstanding Certificate of Need that will expire on July 1, 2019. The project was approved at the May 25, 2016

Agency meeting for the initiation of a 10 bed level 3 neonatal intensive care service, through the transfer of 10 medical/surgical beds from Erlanger Medical Center to Erlanger East Hospital located at 1755 Gunbarrel Road in Chattanooga (Hamilton County), TN 3416 and reclassification of the 10 beds as Level III Neonatal Intensive Care beds. These beds will be built in 8,805 SF of new construction resulting in a project cost in excess of $5M. The licensed bed complement of Erlanger East Hospital will increase from 113 to 123 total beds. The estimated project cost was **$7,021,555.** *Project Status: An email dated 5/30/18 from a representative of the applicant noted the following: "We have proceeded to implement an extensive staff training program, as planned, to increase the skill set of staff working in a Level III NICU by rotating the staff from Erlanger East Hospital to Children's Hospital at Erlanger. This process has taken some time as it is necessary to operate two sites concurrently. The staff is trained and we have added additional Level III services at Erlanger East Hospital. We have also sought to identify a lower cost way to address current spatial deficiencies, but have not as yet finalized our plans to review with the Department of Health. This is expected in the near term. Should additional time be needed to complete implementation, we would intend to request and extension to the CON expiration date now set at July 1, 2019."*

Chattanooga-Hamilton County Hospital Authority d/b/a Erlanger Medical Center, CN1412-048A, has an outstanding Certificate of Need that will expire on May 1, 2019. The project was approved at the March 25, 2015 Agency meeting for the acquisition of a linear accelerator and the initiation of services at Erlanger East Hospital at 1755 Gunbarrel Road, Chattanooga, TN a satellite hospital operating under the license of Erlanger Medical Center, 975 East 3rd Street, Chattanooga (Hamilton County), Tennessee. If approved, the new linear accelerator at Erlanger East Hospital will replace a linear accelerator at Erlanger Medical Center reducing the number of linear accelerators at Erlanger Medical Center from two to one. The estimated project cost was **$10,532,562.00.** *Project Status Update: An email dated 4/02/18 from a representative of the applicant noted the project is progressing toward completion with the expectation that the first patient will be treated in early September 2018. The applicant expects the project will be completed within the limits of the authorized capital budget.*

Erlanger Health System has financial interests in this project and the following:

Outstanding Certificates of Need

Erlanger Sequatchie Valley Regional Hospital-Dunlap, TN, CN1709-027, has an outstanding Certificate of Need that will expire on February 1, 2020. The project was approved at the December 13, 2017 Agency meeting for the relocation and construction of a critical access hospital consisting of 25 licensed inpatient beds.

The critical access hospital is currently located at 71 Wheelertown Avenue, Pikeville (Bledsoe County), TN 37367 and will be relocated to 17399 Rankin Avenue, Dunlap (Sequatchie County), TN 37327. The service area consists of Bledsoe, Grundy and Sequatchie Counties. The estimated project cost was **$32,653,836**. *Project Status Update: The project was recently approved.*

Erlanger Sequatchie Valley Regional Hospital-Satellite Emergency Department, CN1709-028A, has an outstanding Certificate of Need that will expire on February 1, 2020. The project was approved at the December 13, 2017 Agency meeting for the establishment of a satellite Emergency Department of Erlanger Sequatchie Valley Regional Hospital. The satellite emergency department is currently located at 16931 Rankin Avenue, Dunlap (Sequatchie County), TN 37327 and will be relocated to 533 US Highway 127 Bypass, Pikeville (Bledsoe County), TN 37367. The satellite ED's primary service area will be Bledsoe County. The estimated project cost was **$4,388,484.00.** *Project Status Update: the project was recently approved.*

Erlanger Behavioral Health, CN1603-012A, has an outstanding Certificate of Need that will expire on September 1, 2019. The project was approved at the August 24, 2016 Agency meeting for the establishment of an eighty-eight (88) bed mental health hospital located at an unaddressed site at the intersection of North Holtzclaw Avenue and Citico Avenue, Chattanooga, (Hamilton County), TN 37404. The estimated project cost is **$25,112,600**. *Project Status Update: A letter dated 6/22/18 from a representative of the applicant notes the project has been completed and is now licensed and operational. A final project report is pending.*

CERTIFICATE OF NEED INFORMATION FOR OTHER FACILITIES IN THE SERVICE AREA:

There are no Letters of Intent, denied applications, or outstanding Certificates of Need for other health care organizations in the service area proposing this type of service.

Pending Applications

Cleveland Tennessee Hospital Company, LLC d/b/a Tennova Healthcare - Cleveland, CN1803-015, has a pending application that will be heard at the June 27, 2018 Agency meeting for the establishment of a satellite emergency department facility with 8 treatment rooms at 680 Stuart Road NE, Cleveland (Bradley County), TN. The service area includes Bradley and Polk Counties. The estimated project cost is **$12,081,195.**

PLEASE REFER TO THE REPORT BY THE DEPARTMENT OF HEALTH, DIVISION OF HEALTH STATISTICS, FOR A DETAILED ANALYSIS OF THE STATUTORY CRITERIA OF NEED, ECONOMIC FEASIBILITY, HEALTH CARE THAT MEETS APPROPRIATE QUALITY STANDARDS, AND CONTRIBUTION TO THE ORDERLY DEVELOPMENT OF HEALTH CARE IN THE AREA FOR THIS PROJECT. THAT REPORT IS ATTACHED TO THIS SUMMARY IMMEDIATELY FOLLOWING THE COLOR DIVIDER PAGE.

PME
(6/21/2018)